UNITED STATES PATENT AND TRADEMARK OFFICE

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Dallas, TX 75380

EXAMINER
PHAM, CHRYSTINE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/600,056	HERLE ET AL.
	Examiner	Art Unit	
	Chrystine Pham	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 March 2007</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date <u>04/02/2007</u>.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to Paper filed on March 9, 2007. No claims have been

amended. Claims 1-30 are presented for examination.

Response to Arguments

2.   Applicant's arguments filed March 9, 2007 have been fully considered but they

are not persuasive.

        Applicants essentially contend, "Imamatsu does not teach creating

replacement code in *RAM* from downloaded software update filed stored in non-

volatile memory and reprogramming a target file in non-volatile memory by

storing the replacement code from RAM into the target file in non-volatile

memory" (Remarks, page 13, 1st full paragraph). The Examiner respectfully

disagrees. First, Applicants appear to disregard the cited sections of Imamatsu

(see previous Office Action, page 3), which clearly disclose a wireless

communication device (see at least *10* FIG.3 & associated text ; *mobile terminal*

device 10 col.4:30-54) comprising a main memory 23, which includes a *random*

access memory 34 (i.e., RAM) (see at least *23* FIG.3 & associated text; *34*

FIG.4A & associated text). As established in the previous Office Action (page 2),

col.6:62-col.7:5 explicitly teaches rewriting/updating the present control-software

43 (i.e., target file to be updated) by downloading the new control-software into

the download buffer 44 (i.e., flash ROM 33 or non-volatile memory).

Furthermore, Imamatsu explicitly teaches storing (i.e., creating) the address of

the latest version-management information/transmission block (i.e., replacement

code from said downloaded software update file) in the work area 45 of RAM 34

(see at least col.7:33-40) to keep track of the download progress and to make it

possible to resume downloading from the interrupted point (i.e., lastest

transmission block stored in the RAM) (see at least col.15:34-45). Thus, contrary

to Applicants' argument, Imamatsu clearly teaches "creating replacement code in

RAM from downloaded software update filed stored in non-volatile memory and

reprogramming a target file in non-volatile memory by *storing the replacement*

code from RAM into the target file in non-volatile memory".

3.   In view of the foregoing discussion, rejection of claims under 35 USC 102(e) and

103(a) is considered proper and maintained.   .

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

 (e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

5.   Claims 1-2, 11-12, 21-22 and 26-27 are rejected under 35 U.S.C. 102(e) as

being anticipated by Imamatsu (Us 6,687,901 B1).

Claim 1

Imamatsu teaches a wireless communication device (see at least *10* FIG.3 & associated

text; col.3:10-18) capable of downloading a software update file from a wireless network

(see at least Abstract), said wireless communication device comprising: a non-volatile

memory capable of being re-programmed by sectors (see at least *33* FIG.4A &

associated text), wherein said non-volatile memory stores: 1) a target file to be updated

(see at least *43* FIG.4A & associated text), 2) said downloaded software update file (see

at least *44* FIG.4a & associated text; col.6:62-63; col.7:3-5; col.8:65-67), and 3) a

journal comprising a plurality of entries, each of said plurality of entries containing status

information associated with a re-programmed sector of said non-volatile memory (see at

least *33, 42* FIG.4A & associated text; FIG.5 & associated text; col.6:1-6; col.7:50-

col.8:32); a random access memory (see at least *23* FIG.3 & associated text; *34* FIG.4A

& associated text); and a main processor (see at least *22* FIG.3 & associated text)

capable of replacing target code in said target file with replacement code from said

downloaded software update file (see at least col.15:34-55), wherein said main

processor creates a first block of replacement code in said random access memory and

re-programs a first target sector of said non-volatile memory by storing said first block of

replacement code into said first target sector, and wherein said main processor updates

first status information in a first entry in said journal associated with said first target

sector (see at least *33, 42* FIG.4A & associated text; FIG.5 & associated text; col.6:1-6;

col.7:32-col.8:32; col.15:34-45).

Claim 2

The rejection of base claim 1 is incorporated. Imamatsu further teaches wherein said

first status information comprises a first parameter indicating that said first block of

replacement code was successfully stored in said first target sector (see at least *33, 42*

FIG.4A & associated text; FIG.5 & associated text; col.6:1-6; col.7:50-col.8:32).

Claims 11-12, 21-22, 26-27

Claims recite limitations which have been addressed in claims 1-2, therefore, are

rejected for the same reasons cited in claims 1-2.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 3-10, 13-20, 23-25, 28-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Imamatsu in view of Aija et al. (US 6,928,579 B2, "Aija").

Claim 3

The rejection of base claim 2 is incorporated. Imamatsu does not expressly disclose storing first target code from said first target sector in a save-area of said non-volatile memory prior to storing said first block of replacement code into said first target sector. However, Aija teaches a crash recovery system in which a wireless device (i.e., main processor) communicates with a server to receive software update (see at least Abstract), wherein said main processor is further capable of storing first target code from said first target sector in a save-area of said non-volatile memory (see at least *S22* FIG.4 & associated text) prior to storing said first block of replacement code into said first target sector (see at least *S26* FIG.4 & associated text). Imamatsu and Aija are analogous art because they are directed to wireless software update. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Aija into that of Imamatsu for the inclusion of saving the current code (i.e., first target code) into a save-area of the non-volatile memory before storing the new code (i.e., replacement code) in the first sector. And the motivation for doing so would have been to revert back to the previous version (i.e., first target code) in response to system crash or user request (see at least col.5:50-67).

Claim 4

The rejection of base claim 3 is incorporated. Imamatsu as modified by Aija further teaches wherein said first status information comprises a second parameter indicating that said first target code from said first target sector was successfully stored in said

save-area of said non-volatile memory (see at least *33, 42* FIG.4A & associated text;

FIG.5 & associated text; col.6:1-6; col.7:50-col.8:32).

Claim 5

The rejection of base claim 4 is incorporated. Aija further teaches wherein said main

processor is further capable of storing said first target code from said save-area back

into said first target sector after a power loss in said mobile station (see at least

col.2:49-60; col.5:50-col.6:5).

Claim 6

The rejection of base claim 5 is incorporated. Imamatsu further teaches wherein said

first block of replacement code in said random access memory is equivalent in size to a

sector of said non-volatile memory (see at least col.6:15-21; col.7:3-5; col.8:65-67).

Claim 7

The rejection of base claim 6 is incorporated. Imamatsu further teaches wherein said

main processor, after said wireless communication device is restarted after a power

loss, uses status information stored in said journal to identify a last successfully re-

programmed sector in said non-volatile memory (see at least col.7:32-60; col.15:34-51).

Claim 8

The rejection of base claim 7 is incorporated. Imamatsu further teaches wherein said main processor resumes replacing target code in said target file with replacement code from said downloaded software update file by re-programming a next sequential sector in said non-volatile memory following said last successfully re-programmed sector (see at least FIG.5 & associated text; col.7:50-60).

Claim 9

The rejection of base claim 8 is incorporated. Imamatsu further teaches wherein said journal is stored in at least a first journal sector and a second journal sector of said non-volatile memory (see at least FIG.5 & associated text; col.7:50-60).

Claim 10

The rejection of base claim 9 is incorporated. Imamatsu further teaches wherein said main processor, in response to a determination that said first journal sector is full of journal entries, erases said second journal sector and stores a next journal entry in said second journal sector (see at least col.7:50-60).

Claims 13-15, 23-25, 28-30

Claims recite limitations which have been addressed in claims 3-5, therefore, are rejected for the same reasons cited in claims 3-5.

Claim 16-20

Claims recite limitations which have been addressed in claims 6-10, therefore, are

rejected for the same reasons cited in claims 6-10.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
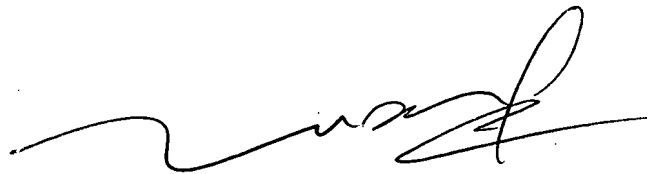
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chrystine Pham whose telephone number is 571-

272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

TUAN DAM
SUPERVISORY PATENT EXAMINER